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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,241	02/12/2004	Torsten Niederdrank	P04,0027	4504

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EXAMINER	
SWERDLOW, DANIEL	
ART UNIT	**PAPER NUMBER**
2615	

DATE MAILED: 09/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/777,241	NIEDERDRANK ET AL.	
	Examiner	Art Unit	
	Daniel Swerdlow	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 July 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Anderson (US Patent 5,721,783).

3. Regarding Claim 1, Anderson discloses a hearing aid (Fig. 1, reference 10; Fig. 8; column 3, lines 52-60) that includes an RF transceiver (Fig. 1, reference 13) that corresponds to the data transmission device claimed and comprises: an oscillator (Fig. 8, reference 835) that is modulated (column 12, lines 20-24) to generate a reply signal that corresponds to the alterable transmission signal claimed (column 12, lines 24-38); and an antenna and resonator configuration (Fig. 4, reference 40, 41, 42) that includes a resonator pair (Fig. 4, reference 41, 42) and, as such, constitutes a coil device, as claimed and includes an antenna and, as such, constitutes an antenna device, as claimed and is used for both interrogation and reply (i.e., transmission and reception) (column 11, lines 31-35).

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 2 through 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson in view of Sano (US Patent 6,828,868).

6. Regarding Claim 2, as shown above apropos of Claim 1, Anderson anticipates all elements except that Anderson is silent as to the structure of the oscillator circuit. Sano discloses

an oscillating circuit (Fig. 5) comprising a resonant circuit of inductor (L1) and selectable capacitors (C1-1 through C3-2) (i.e., an LC resonant circuit) (column 4, lines 14-65). Sano further discloses that such an arrangement provides stable oscillations of controllable frequency and may be formed on an integrated circuit, which one skilled in the art would have known provides advantages in size, weight, economy and power conservation (column 7, lines 42-45, 55-58). It would have been obvious to one skilled in the art at the time of the invention to apply the oscillator taught by Sano to the hearing aid transceiver taught by Anderson for the purpose of realizing the aforesaid advantages.

7. Regarding Claim 3, as shown above apropos of Claim 1, Anderson anticipates all elements except that Anderson is silent as to the structure of the oscillator circuit. Sano discloses an oscillating circuit (Fig. 5) comprising a current source, differential pair and current mirror configuration (Fig. 5, reference I0, M1, M2, M3, M4; column 3, lines 26-59; column 4, lines 9-18) that corresponds to the actuation circuit claimed. Sano further discloses that such an arrangement provides stable oscillations of controllable frequency and may be formed on an integrated circuit, which one skilled in the art would have known provides advantages in size, weight, economy and power conservation (column 7, lines 42-45, 55-58). It would have been obvious to one skilled in the art at the time of the invention to apply the oscillator taught by Sano to the hearing aid transceiver taught by Anderson for the purpose of realizing the aforesaid advantages.

8. Regarding Claim 4, as shown above apropos of Claim 3, the configuration that corresponds to the actuation circuit claimed comprises a current mirror (Fig. 5, reference M3, M4) and a differential pair (Fig. 5, reference I0, M1, M2) that corresponds to the comparator claimed.

9. Regarding Claim 5, Sano further discloses a driver (Fig. 8, reference D4) that corresponds to part of the current mirror claimed and comprises a control to control power output and oscillation amplitude (column 8, lines 31-37).

10. Regarding Claim 6, as shown above apropos of Claim 1, Anderson anticipates all elements except that Anderson is silent as to the structure of the oscillator circuit. Sano discloses an oscillating circuit (Fig. 3) comprising a connectable capacitor (C2) for readily changing the oscillation frequency (i.e., frequency modulating an oscillation in the oscillator circuit) (column 3, lines 60-67). Sano further discloses that such an arrangement provides stable oscillations of controllable frequency and may be formed on an integrated circuit, which one skilled in the art would have known provides advantages in size, weight, economy and power conservation (column 7, lines 42-45, 55-58). It would have been obvious to one skilled in the art at the time of the invention to apply the oscillator taught by Sano to the hearing aid transceiver taught by Anderson for the purpose of realizing the aforesaid advantages.

11. Regarding Claim 7, as shown above apropos of Claim 1, Anderson anticipates all elements except that Anderson is silent as to the structure of the oscillator circuit. Sano discloses an oscillating circuit (Fig. 3) comprising a connectable capacitor (C2) and switch (S1) configuration that corresponds to the trimming device claimed for readily changing the oscillation frequency (i.e., trimming the resonant frequency of the oscillator circuit) (column 3, lines 60-67). Sano further discloses that such an arrangement provides stable oscillations of controllable frequency and may be formed on an integrated circuit, which one skilled in the art would have known provides advantages in size, weight, economy and power conservation (column 7, lines 42-45, 55-58). It would have been obvious to one skilled in the art at the time

of the invention to apply the oscillator taught by Sano to the hearing aid transceiver taught by Anderson for the purpose of realizing the aforesaid advantages.

12. Regarding Claim 8, as shown above apropos of Claim 7, the configuration that corresponds to the trimming device claimed comprises a connectable capacitor (C1).

13. Regarding Claim 9, Sano further discloses a driver (Fig. 8, reference D4) that corresponds to part of the current mirror claimed and receives an input that corresponds to the actuation signal claimed to control output current amplitude (i.e., produce amplitude modulation) (column 8, lines 31-37).

14. Regarding Claim 10, Sano further discloses connectable capacitors (C1-1 through C3-2) that correspond to the modulator circuit claimed (column 4, lines 14-65).

15. Regarding Claim 11, Sano further discloses connectable capacitors (C1-1 through C3-2) that correspond to the trimming device claimed and control (i.e., trim) the resonant frequency of the oscillator circuit (column 4, lines 14-65).

Response to Arguments

16. Applicant's arguments filed 19 July 2006 have been fully considered but they are not persuasive.

17. Applicant alleges on pages through 7 of the response that Anderson fails to disclose a coil device that is used as an antenna device, as claimed in Claim 1 as amended. Examiner respectfully disagrees. The terms "antenna device" and "coil device" are no limited in meaning to "antenna" and "coil", respectively. Rather, the inclusion of the term "device" reduces the terms "antenna" and "coil" to modifiers. As such any device that includes an antenna or operates in conjunction with an antenna (e.g., an antenna tuner, an antenna rotator) can be considered an

"antenna device". Similarly, any device that includes or operates in conjunction with a coil (e.g., an antenna tuner) can be considered a "coil device". In this case, the circuit illustrated in Fig. 4 in Anderson includes an antenna and coils and, as such can be considered "a coil device that is used as said antenna device" as claimed.

18. Applicant alleges on page 7 of the response that one skilled in the art would not have motivation to combine the teaching of Sano with the hearing aid taught in Anderson. Examiner respectfully disagrees. The fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). In this case, the advantages of stable oscillation, controllable frequency and integratability disclosed in Sano provide motivation to apply the teachings.

Conclusion

19. Applicant's amendment necessitated any new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Swerdlow whose telephone number is 571-272-7531. The examiner can normally be reached on Monday through Friday between 7:30 AM and 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh H. Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Daniel Swerdlow
Primary Examiner
Art Unit 2615

ds
18 September 2006